

# Yellowstone Cutthroat Trout



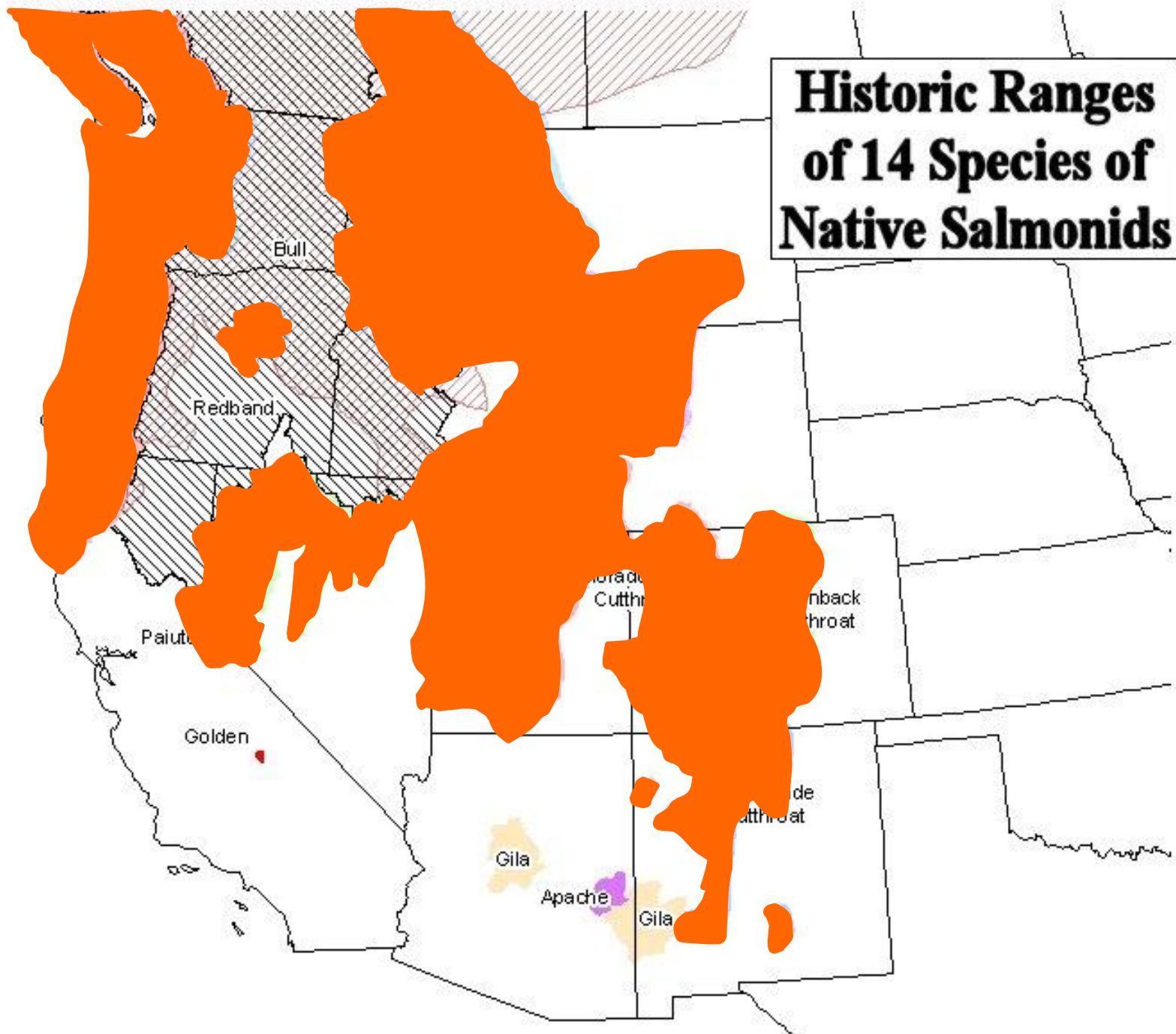
# Outline

- An introduction to Yellowstone Cutthroat Trout
- Prehistoric to current day distribution
- Causes of cutthroat declines
- Examples from the Big Horn Basin
- Legal and Institutional Status

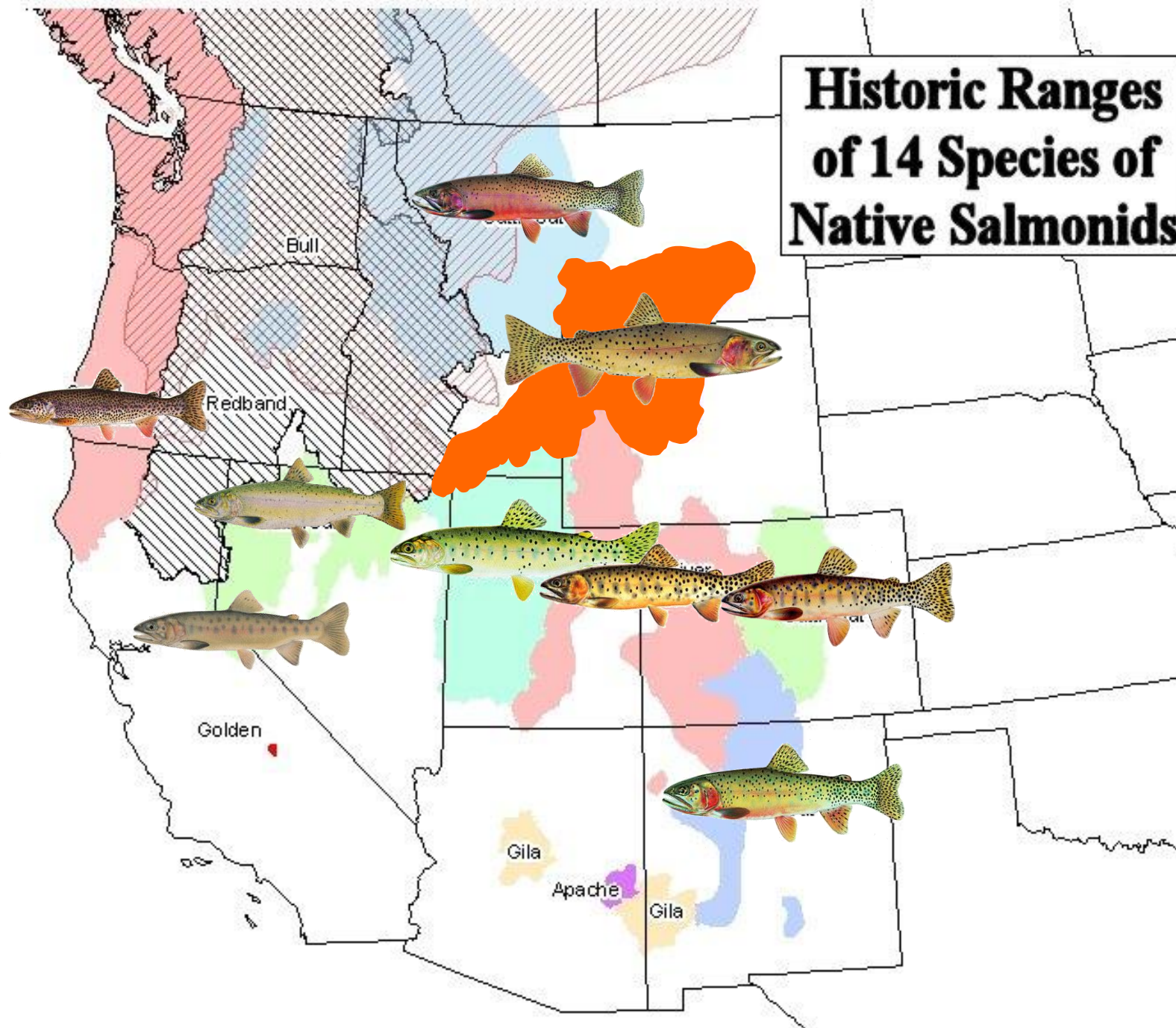




# Historic Ranges of 14 Species of Native Salmonids

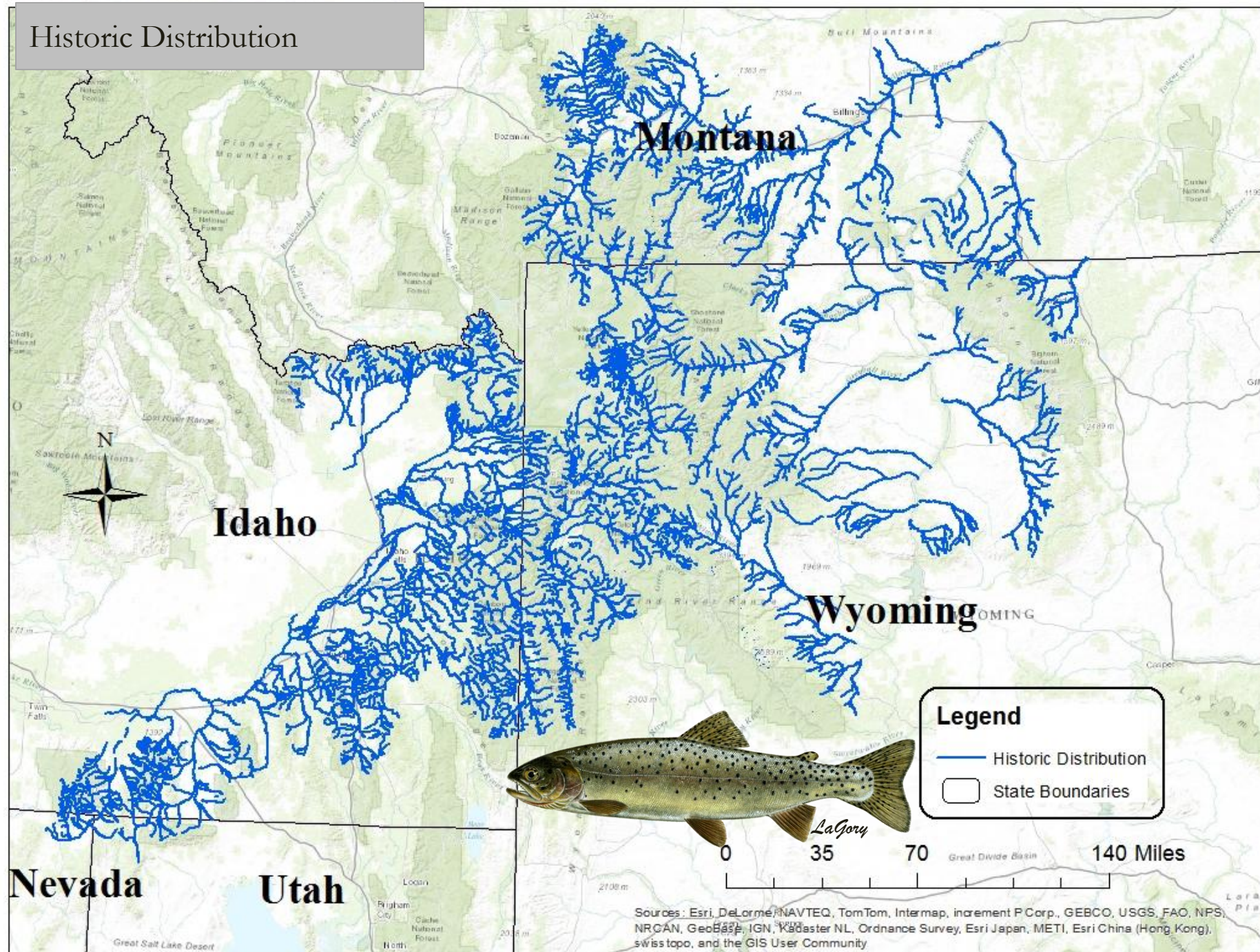


# Historic Ranges of 14 Species of Native Salmonids





# Historic Distribution

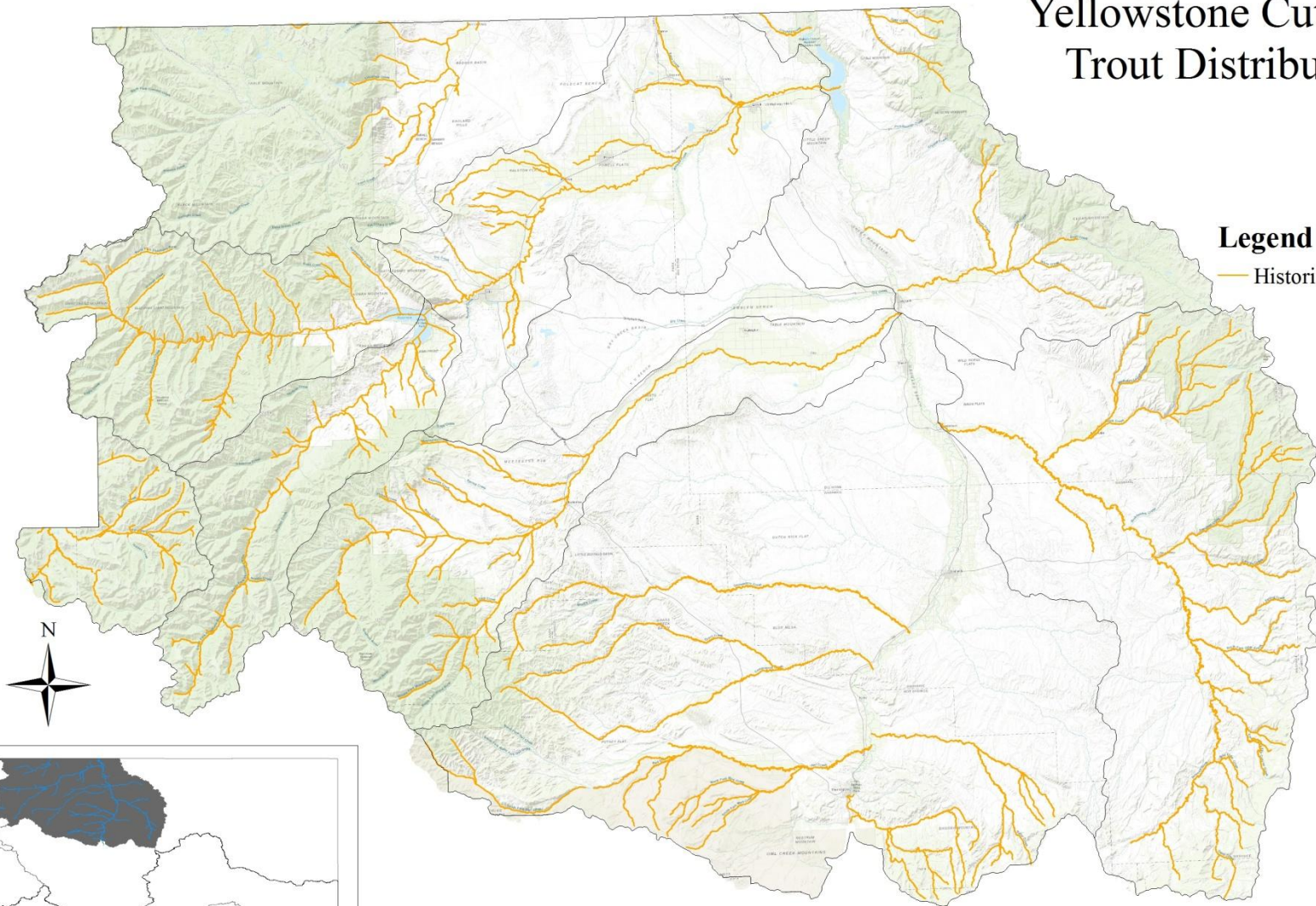




# Yellowstone Cutthroat Trout Distribution

## Legend

— Historic Distribution



0 4.75 9.5 19 28.5 38 Miles

Sources: Esri, HERE, DeLorme, Intermap, iPlanet, P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, © OpenStreetMap contributors, and the GIS User Community



# Yellowstone Cutthroat Trout Distribution Present Day

## Legend

- Hybridized YSC
- Nonnatives with YSC
- YSC



0 4.75 9.5 19 28.5 38 Miles

Sources: Esri, HERE, DeLorme, Intermap, iPlanet, Mapbox, OpenStreetMap, Swatch, USGS, NOAA, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swatch, Mapbox, © OpenStreetMap contributors, and the GIS User Community

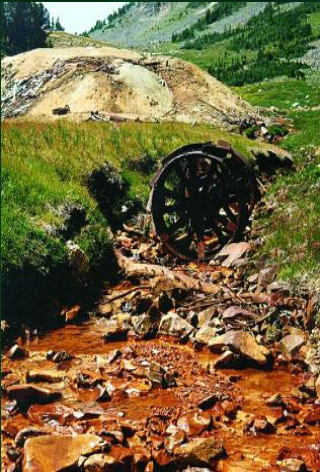


# Reasons For Yellowstone Cutthroat Declines

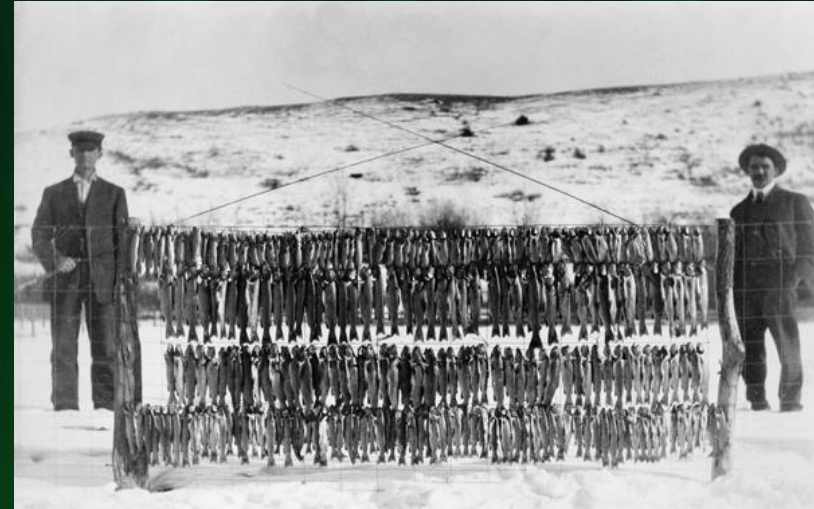
Habitat Degradation

Over Harvest

Mining



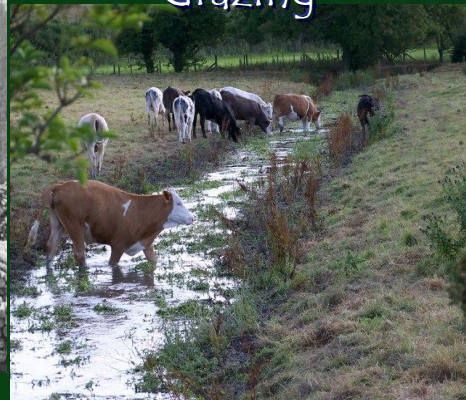
Water Development



Logging



Grazing




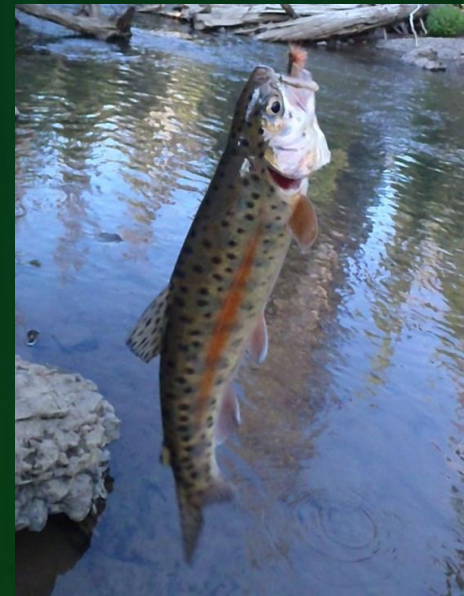


# Reasons For Yellowstone Cutthroat Declines

Non-native trout



 Hybridization, competition and predations are all ways in which non-native trout affect Yellowstone Cutthroat Trout





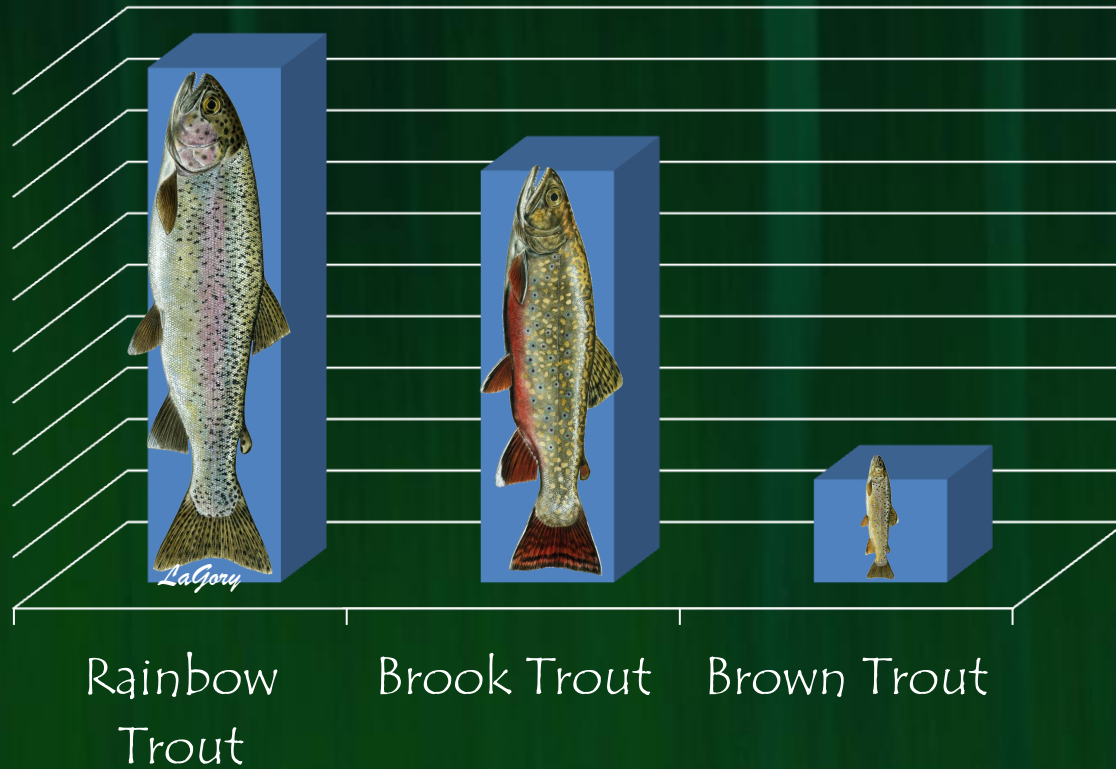
# Reasons For Yellowstone Cutthroat Declines

- There is a long history of stocking in Wyoming dating back to the late 1800s
- US Fish Commission was founded in 1871





# Nonnative Trout Effects on Yellowstone Cutthroat Trout





# Nonnative Trout Effects on Yellowstone Cutthroat Trout

- Rainbow Trout
  - Rainbow Trout are spring spawners and cogenetic with Cutthroat Trout.
  - Hybridization between the two is common and hybrids are viable.





# Nonnative Trout Effects on Yellowstone Cutthroat Trout

- Brook and Brown Trout
  - Both species are fall spawners resulting in earlier fry emergence than Yellowstone Cutthroat.
  - Antagonistic competition with and predation by early life forms leads to the reduction in and eventual extirpation of Yellowstone Cutthroat Trout.





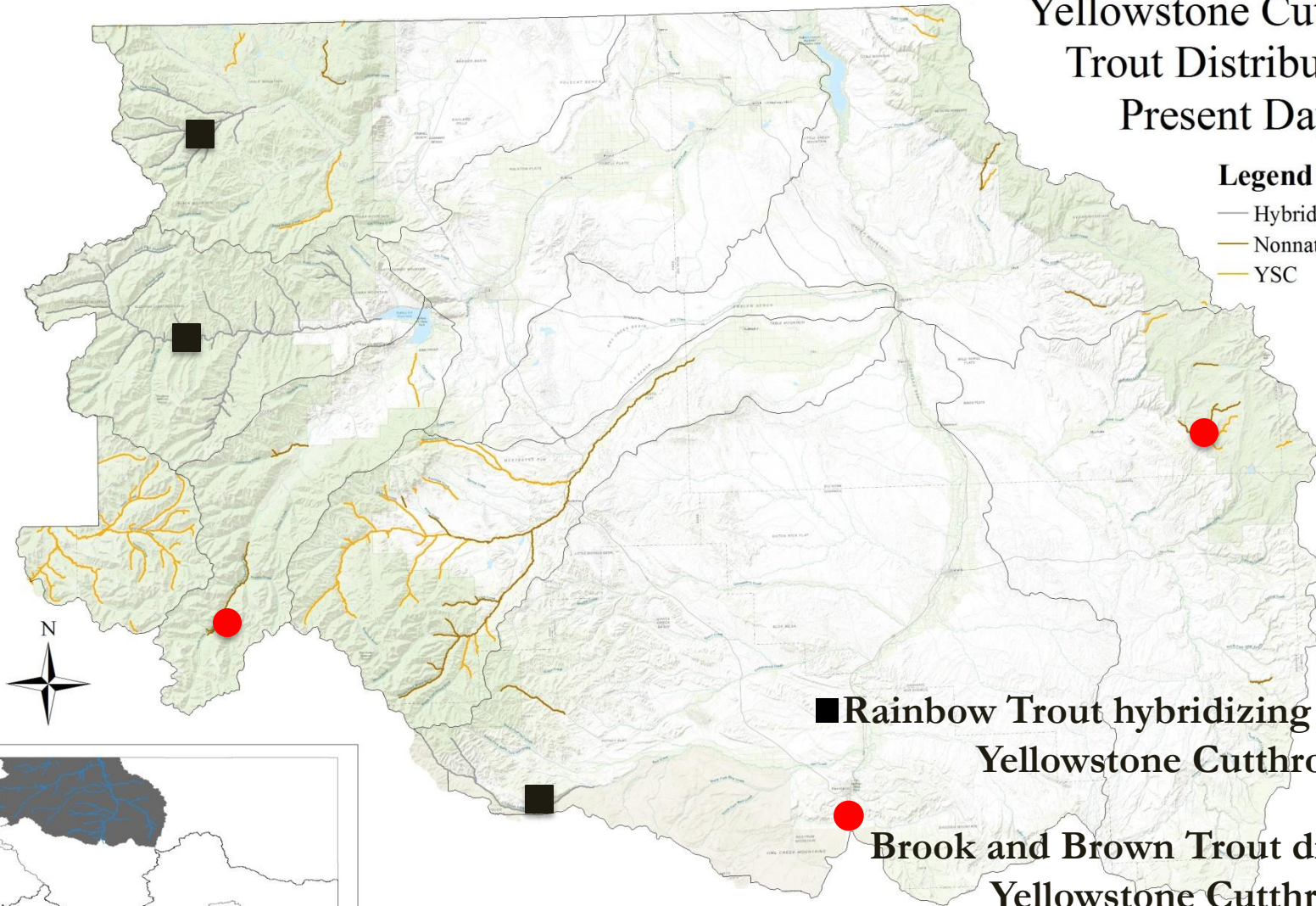


- Most of our Yellowstone Cutthroat Trout Populations were already impacted or extirpated before comprehensive fisheries surveys were conducted.

# Yellowstone Cutthroat Trout Distribution Present Day

### Legend

- Hybridized YSC
- Nonnatives with YSC
- YSC













■ Rainbow Trout hybridizing with Yellowstone Cutthroat Trout

● Brook and Brown Trout displacing Yellowstone Cutthroat Trout

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



# Yellowstone Cutthroat Trout

-  1998 – Petitioned for listing under the ESA.
-  2000– Formation of Yellowstone Cutthroat Trout Conservation Team
-  2001 – The FWS determine listing not warranted.
-  2003 – First Range-Wide Status Assessment completed
-  2004 – Groups sue FWS over failing to list YSC forcing the FWS into a 12-month status review.
-  2006 – FWS completed 12-month status review and determine listing was not warranted.
-  2006– Groups file and intent to sue.
-  2006 –Status Review
-  2011–Status Review
-  2016–Status Review --Underway

# Yellowstone Cutthroat Trout Conservation Team

## Signatory Agencies

- Wyoming Game and Fish Department
- Idaho Fish and Game
- Montana Fish Wildlife and Parks
- Nevada Department of Wildlife
- Utah Department of Natural Resources
- US Forest Service (Regions 1, 2, and 4)
- US Bureau of Land Management (State Offices in Wyoming, Idaho, Montana, Nevada, and Utah)
- Yellowstone National Park
- National Resource Conservation Service (State Offices in Wyoming, Idaho, Montana, Nevada, and Utah)

## Supporting Organizations

- Idaho Trout Unlimited
- Montana Trout Unlimited
- Nevada Trout Unlimited
- Utah Council of Trout Unlimited
- Wyoming Trout Unlimited
- Federation of Fly Fishers



# Yellowstone Cutthroat Trout Conservation Team

- Goal is to ensure the persistence of YSC throughout its broad historical range.
- Areas that currently support YSC will be maintained, while other areas will be managed for increased abundance and connectivity of YSC populations.
- New populations will be established where ecologically, economically, and socially feasible.
- YSC populations will be managed to preserve genetic integrity and provide adequate numbers and populations for protection and maintenance of intrinsic and recreational values associated with YSC.
- The cooperators envision a future where threats to wild YSC are either eliminated or reduced to the greatest extent possible.

# Nonnative Trout Effects on Yellowstone Cutthroat Trout



To ensure the long-term persistence of Yellowstone Cutthroat Trout we need to secure or establish populations free from the invasion of non-native trout.

